

ABSTRACT

A laser-clad processing apparatus of the present invention is one which is for carrying out laser-clad processing onto a valve-seat portion of a cylinder head, and is characterized in that it comprises cylinder-head holding means (1) for holding a cylinder head (H) in an inclining manner so that the central axial line of a valve seat becomes the vertical direction, a laser-processing head (2) for irradiating a laser beam onto a process part of the valve seat and at the same time discharging a powdery material to this process part, rotary means (3) which rotates around the central axial line of the valve seat in such a state that the laser-processing head is inclined with respect to the vertical direction, and powdery-material supply means (4) for supplying the powdery material to the laser-processing head.

Moreover, a laser-clad processing method of the present invention is characterized in that it fixes the cylinder head (H), and forms a clad layer while rotating the laser-processing head (2), which emits the laser beam with respect to the valve-seat portion of the cylinder head and discharges the powdery material, around the axial center line of the valve seat.